

REMARKS

Careful reconsideration of this application in view of the following amendments and remarks is respectfully requested.

Rejections Based on References:

In paragraph 7, claims 7-10 were rejected under 35 U.S.C. 103 over U.S. Patent No. 4,731,311 (Suzuki). These rejections are most respectfully traversed, as follows.

1. The Suzuki Reference

The Suzuki reference relates to the use of pyrrole and the like, and discloses only the use of lithium trifluoromethanesulfonate in an electrolyte for batteries. On the other hand, the preferred embodiments herein involve the incorporation of **anions, including, e.g., trifluoromethanesulfonate ion and/or plural of fluorine atoms which bond to central atom into polypyrrole in a polypyrrole film (see claim 7) or a polypyrrole layer (see claim 9) as a part of the polymer component.**

As set forth in greater detail below, the Suzuki reference, thus, does not teach or make obvious the features recited in the present claims.

2. Not Only Monomers Such As Pyrrole

It is respectfully noted that the polypyrrole film and polypyrrole layer used in the preferred embodiments contain, in the backbone of polypyrrole, ***not only monomers such as pyrrole, but also trifluoromethanesulfonate ions or the like*** (see claims for particular elements claimed). As a result, the preferred embodiments have excellent tensile strength, have good tensile breaking elongation, are strong against forces in a direction extending horizontal to a film surface, and are hard to break. As a result, the preferred embodiments are very

effective and beneficial. See e.g. the present specification, including, e.g., first paragraph on page 4.

With respect to independent claim 7, the claim now recites “at least pyrrole and/or pyrrole derivatives and anions including trifluoromethanesulfonate ion and/or plural of fluorine atoms which bond to central atom are incorporated, wherein said polypyrrole films have a tensile strength of not less than 60 MPa.”

With respect to independent claim 9, the claim now recites “a polypyrrole layer into which at least pyrrole and/or pyrrole derivatives and anions including trifluoromethanesulfonate ion and/or plural of fluorine atoms which bond to central atom are incorporated, on said metal surface, wherein the polypyrrole in said polypyrrole layer has a tensile strength of not less than 60 MPa.”

3. Improved and Unexpected Mechanical Strength

Among other things, the polypyrrole film (see claim 7) or layer (see claim 9) have excellent mechanical strength, and, thus, are provide unexpected advantages in applications requiring high mechanical strength. Notably, as is evident from Comparative Example 3 set forth in the present application at page 14+, a polypyrrole film or a polypyrrole layer that contains no anions including trifluoromethanesulfonate ion and/or plural of fluorine atoms which bond to central atom, has a poor tensile strength and poor tensile breaking elongation. Thus, a polypyrrole film or polypyrrole layer **alone** cannot attain the excellent advantages of the present invention.

4. No Conductive Fillers Are Needed

Furthermore, it is respectfully noted that because polypyrrole has conductivity, the addition of conductive fillers is not necessary. Here, the polypyrrole film (see claim 7) and the polypyrrole layer (see claim 9), although

potentially light and thin, can have excellent mechanical strength as discussed in the present specification.

5. Fully Supported In Present Application

For reference, it is respectfully noted that the present claims, as amended to incorporate the foregoing clearly-allowable subject matter, are fully supported by the present disclosure.

Claim 7: With respect to claim 7, the specification sets for, e.g., anions including trifluoromethanesulfonate ion and/or plural of fluorine atoms which bond to central atom are contained (incorporated) in the backbone of polypyrrole (see, e.g., page 3, lines 2-4, page 4, lines 22-32, etc.) and, e.g., that a tensile strength achieved is not less than 60 MPa (see, e.g., original claim 4, examples, etc.).

Claim 9: With respect to claim 9, the specification sets for, e.g., that the process for forming a layer (e.g., the process for forming coating layers in the present application) is akin to the process for preparing a polypyrrole film. See, e.g., page 3, line 21 to page 4, line 1, etc. Because the polypyrrole layer is prepared by the same process, it, thus, clearly has the same feature that anions, including trifluoromethanesulfonate ion and/or plural of fluorine atoms which bond to central atom are contained in the backbone of polypyrrole.” Accordingly, no new matter is added. More specifically, it is noted that the polypyrrole layer obtained by the process for forming a layer is closely contacted with the substrate and, thus, the tensile strength of the polypyrrole layer alone cannot be measured. Accordingly, the process for preparing a polypyrrole film and the process for forming a layer are identical in terms of the starting materials and processes used, and it would be fully understood and appreciated that polypyrrole having the same tensile strength can be obtained by the two processes.

6. Allowability of Claims

In view of the foregoing, it is respectfully submitted that independent claims 7 and 9 are allowable. The remaining claims, 8 and 10-14 depend from these independent claims, and, thus, are also allowable. In addition, these dependent claims recite other combinations of features that are not taught or rendered obvious by the cited references. Careful consideration of each and every claim is respectfully requested.

Concluding Remarks:

In view of the foregoing amendments and remarks, early reconsideration and allowance are respectfully requested. In the event that any fees are now due, the Commissioner is authorized to charge Deposit Account No. 50-4080 any such fees due in this application.

Respectfully submitted,

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